Message

From: Hall, Casey [Casey.Hall@meritenergy.com]
Sent: 9/29/2022 9:47:56 PM
To: Wiser, Nathan [Wiser.Nathan@epa.gov]
Subject: FW: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)
Attachments: 2249_001.pdf

Good Afternoon Nathan,

Just wanted to let you know that we moved the rig to 65-42 today.

We will be in contact more and throughout the job.

Thanks,

Casey Hall
Merit Energy Company
13727 Noel Road, Suite 1200
Dallas, TX 75240
Cell: (214) 957-1502
Office: (972) 628-1440

From: Hall, Casey
Sent: Monday, September 19, 2022 10:43 AM
To: 'Wiser, Nathan' <Wiser.Nathan@epa.gov>; Owsley, T <T.Owsley@meritenergy.com>
Cc: Miller, Matt <Matt.Miller@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Good Morning Nathan,

We are planning on moving a rig into Circle Ridge to execute 65-42 next Tuesday, September 27th.

We will be in contact when you return to the office next week and throughout the job.

Casey Hall
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From: Wiser, Nathan <Wiser.Nathan@epa.gov>
Sent: Wednesday, July 27, 2022 10:51 AM
To: Hall, Casey <Casey.Hall@meritenergy.com>; Owsley, T <T.Owsley@meritenergy.com>
Cc: Miller, Matt <Matt.Miller@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

EXTERNAL EMAIL

Thank you for the notice. Keep us informed please.

Nathan Wiser, Underground Injection Control Program
(he/his/him)

U.S. Environmental Protection Agency Region 8
1595 Wynkoop Street (mail code 8ENF-W-SD)
Denver, Colorado 80202

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From: Hall, Casey <Casey.Hall@meritenergy.com>
Sent: Wednesday, July 27, 2022 9:18 AM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>; Owsley, T <T.Owsley@meritenergy.com>
Cc: Miller, Matt <Matt.Miller@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Good Morning Nathan,

We will need to push 65-42 to a later date in August. The current plugging rig is not equipped for such an operation so we will be bringing in another workover rig/crew. That other workover rig/crew is currently working through a list of BLM failed MIT wells and we plan to execute 65-42 right after finishing that list.

Let me know if you have any questions or comments.

Thanks!

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From: Hall, Casey
Sent: Monday, July 18, 2022 7:37 AM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>; Owsley, T <T.Owsley@meritenergy.com>
Cc: Miller, Matt <Matt.Miller@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Good Morning Nathan-

Since TJ was called to another workover rig, we are planning on executing the Shoshone 65-42 on the next round starting on August 1. Just wanting to let you know the plan

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From: Hall, Casey
Sent: Thursday, June 30, 2022 8:27 AM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>; Owsley, T <T.Owsley@meritenergy.com>
Cc: Wang, Gary <wang.gary@epa.gov>; Breffle, Don <Breffle.Don@epa.gov>; Kittinger, Eric <Eric.Kittinger@meritenergy.com>; Georgius, Bob <Bob.Georgius@meritenergy.com>; Miller, Matt <Matt.Miller@meritenergy.com>; Manning, Jason <Jason.Manning@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Thank you Nathan for reviewing this. The plugging outfit will be back in Circle next Tuesday (July 5th), however I will be out. We plan to begin this work on the next 10 days on / 4 days off starting on July 18th when TJ is back in the field and I am back in the office.

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From: Wiser, Nathan <Wiser.Nathan@epa.gov>
Sent: Wednesday, June 29, 2022 6:07 PM
To: Owsley, T <T.Owsley@meritenergy.com>; Hall, Casey <Casey.Hall@meritenergy.com>
Cc: Wang, Gary <wang.gary@epa.gov>; Breffle, Don <Breffle.Don@epa.gov>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

EXTERNAL EMAIL

TJ and Casey,

After some internal discussion on this matter, we offer this response.

Merit should do its best to get at least some cement across the entire wellbore hole. The objective is for the plugged well to prevent any fluid movement into or between underground sources of drinking water (see 40 CFR 146.10).

1. Hopefully, after drilling out the newly-added 3'-219' cement plug inside the 5.5" csg, the rig crew will be successful measuring at least some free point in the 5.5" casing, which will then dictate the approximate cutting depth to pull out the uncemented free casing (per your proposed procedure, this would be 50' above the free point).

2. If however, there is simply no free point, then is it possible to cut the casing at a relatively shallow depth such that the rig would be able to pull out the casing at that shallow cut point (perhaps 25-50')?

3. If this secondary fall-back attempt (2 above) would still pose too much risk to the crew, balance another 200' cement plug inside the 5.5" casing. Consider digging out around the wellbore ***without too much land disturbance***, and cementing-in to create a small cemented cellar (if there is not already one). I don't know if there may be cultural resource matters to consider when digging. If so, this may not be possible. Attach the P&A marker that meets other regulatory agencies' requirements.

4. Record and report this work to EPA afterward. Use EPA Form 7520-19, and include (i) the daily reports, and (ii) a final "as-plugged" diagram.

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From: Owsley, T <T.Owsley@meritenergy.com>
Sent: Tuesday, June 28, 2022 4:25 PM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>; Hall, Casey <Casey.Hall@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Here is my opinion of how we should proceed and still stay on the safe side.

If we drill out and run free point and have no free pipe. We really have two choices.

1. We perforate and try to get cement to circulate around.
2. We have to assume that we have good enough bond behind pipe because even if we run a CBL it'll most like show like cement since we have density behind the pipe. With that being said it would probably be best to just redo our mud and cement back the way it is.

From: Wiser, Nathan <Wiser.Nathan@epa.gov>
Sent: Tuesday, June 28, 2022 2:47 PM
To: Hall, Casey <Casey.Hall@meritenergy.com>
Cc: Owsley, T <T.Owsley@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

EXTERNAL EMAIL

Can you help me with the benefit of your experience? If you drill out the cement inside the 5.5" to 362' and get no stretch (no freepoint), do you think you could even pull the casing out? I don't have as much intrinsic experience with typical limits on pulling force these rigs might have. I certainly would not want to cause an accident.

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From: Hall, Casey <Casey.Hall@meritenergy.com>
Sent: Tuesday, June 28, 2022 2:40 PM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>
Cc: Owsley, T <T.Owsley@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Nathan,

We have a question regarding if the freepoint shows the 5-1/2" CSG to be not free. If that is the case, would we leave the well with a cement balance plug inside and then cut/cap.

1. MIRU and drill-out cement from 3' to 219'.
2. MIRU E-line and run freepoint on 5-1/2" CSG.
    a. If freepoint shows CSG free at +/- 362' (calc TOC),

i. Then cut CSG 50' higher and pull to surface.
ii. Cement balanced plug from cut depth to surface.

b. If freepoint shows CSG is not free,
i. Notify EPA to determine how to proceed

3. WOC overnight. If cement level has fallen, top off casing/hole with cement to surface.
4. Install dry hole plate w/ legal ID. Remove rig anchors.

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From: Hall, Casey
Sent: Tuesday, June 28, 2022 3:06 PM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Good Afternoon Nathan,

We are working on a procedure to send to you to re-enter the well. Should have it internally approved and sent to you tomorrow.

Just wanted to give you a heads up that we are planning to drill-out the cement and remediate the well.

Thanks!

Casey Hall
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From: Wiser, Nathan <Wiser.Nathan@epa.gov>
Sent: Monday, June 27, 2022 12:56 PM
To: Hall, Casey <Casey.Hall@meritenergy.com>
Cc: Bowling, Linda <Bowling.Linda@epa.gov>; Breffle, Don <Breffle.Don@epa.gov>; Wang, Gary <wang.gary@epa.gov>; Kittinger, Eric <Eric.Kittinger@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Hello Casey,

I'd like to have further discussion with you regarding Merit's deviation from the EPA-approved plugging procedure on the Shoshone 65-42 well. I also would like for Merit to revise the final "as-plugged" diagram for the Shoshone 65-41.

For these two wells, your 6/23/22 email response to my questions about the actual plugging indicated:

1. For the Shoshone 65-41 well, cement was discovered to be behind the 5.5" casing to the surface. The "as-plugged" diagram should reflect this if this is true.

2. For the Shoshone 65-42 well, the explanation that Merit was concerned about attempting to squeeze cement through newly-added perfs at approximately 200 feet based on lack of surface casing, age of well, and likelihood that pushing cement behind the 5.5" casing to the surface would be unsuccessful does not appear to have precluded Merit from revising its plugging plan to cut and pull this upper uncemented portion of the 5.5" casing followed by setting a cement plug from the cut-point to the surface. From EPA's comments on the plan it seems clear that the objective was to place cement into this uncemented annulus or find a way to set a cement plug across this uncemented portion of the well, so as to ensure no fluid movement behind the uncemented 5.5" would be likely.

Do you have some time to talk further about this matter? I am happy to schedule a MS Teams meeting with you.

Thank you.

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From: Hall, Casey <Casey.Hall@meritenergy.com>
Sent: Thursday, June 23, 2022 9:48 AM
To: Wiser, Nathan <Wiser.Nathan@epa.gov>
Cc: Bowling, Linda <Bowling.Linda@epa.gov>; Breffle, Don <Breffle.Don@epa.gov>; Wang, Gary <wang.gary@epa.gov>; Kittinger, Eric <Eric.Kittinger@meritenergy.com>
Subject: RE: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

Good Morning Nathan,

Eric forwarded me your message and I hope to clarify these two subject wells.

65-41
While on the well, we discovered that the 5.5" production casing did have cement to surface instead of the calculated 432' to surface in the procedure. The 4.5" (Liner) was cemented during the actual plugging job.

65-42
During the actual plugging, the procedure was changed from perforating the 5.5" production casing at 200' and circulating the cement to surface. Inside 5.5" wellbore was cemented from 219' to surface. There were two main concerns: being able to circulate to surface due to the fact that the well did not have an external barrier (surface casing) and the 2nd was making a future most susceptible entry point of contamination at the squeezed perforation. The well was drilled in 1954 and being able to circulate outside of the 5.5" in the 68 year old drilling mud would have been difficult at best, if possible at all.

With regards due to the lack of communication between Merit and EPA on these two, Merit did not attempt to contact the EPA on these due to not knowing these were EPA wells at the time and also based on the remote location of the field. There was also some miscommunication between the field and myself on any procedural changes on these due to myself being out of the office. We have tried to increase the awareness of which wells are EPA vs. BLM wells going forward after these for example the wells from last week. Out of the 50 wells that we are plugging in Circle Ridge, 7 of them are the EPA wells. Since the BLM has been on location on every well we plugged thus far, Merit and the BLM has tried to approach any procedural changes with the most successful plan to not only plug the well but to protect against any subsurface groundwater contamination.

If you have any more questions or concerns, please reach out. I am in the field this week, so I will have my cell phone with me.

Thanks and have a great day!

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From: Kittinger, Eric <Eric.Kittinger@meritenergy.com>
Sent: Tuesday, June 21, 2022 1:51 PM
To: Hall, Casey <Casey.Hall@meritenergy.com>
Subject: FW: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

See below the questions EPA has on two of the plugged injection wells.

Eric Kittinger
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Merit Energy Company
13727 Noel Road, Ste 1200
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972-628-1441 (Office)
512-554-8093 (Mobile)

From: Wiser, Nathan <Wiser.Nathan@epa.gov>
Sent: Tuesday, June 21, 2022 2:47 PM
To: Kittinger, Eric <Eric.Kittinger@meritenergy.com>
Cc: Bowling, Linda <Bowling.Linda@epa.gov>; Breffle, Don <Breffle.Don@epa.gov>; Wang, Gary <wang.gary@epa.gov>
Subject: Questions on two plugging reports (Shoshone 65-41 and Shoshone 65-42)

EXTERNAL EMAIL

Eric,

I have received and reviewed four plugging reports you sent (three from you on 6/7/22 and one on 6/21/22). Of these four, two have issues I want to better understand. See below.

Shoshone 65-42 well (EPA Well ID WY20000-02182):
The approval EPA granted to plug this well included specific steps (see procedure, steps 8 and 9). These steps planned adding perforations through the 5.5" casing at 200 feet depth and pumping cement through this casing to the surface, in order to fully cement this uncemented portion of the well. Adding this cement would have provided better assurance of precluding fluid movement behind the 5.5" casing into or between underground sources of drinking water. The daily rework records indicate these steps were replaced after consulting with BLM. The replacement steps included balancing a cement plug inside the 5.5" casing, cutting off the 5.5" casing 3 feet below ground, and adding 10 more cement sacks inside the 5.5" casing. This final as-plugged condition leaves the annulus between the 5.5" casing the well borehole still uncemented from surface to 362 feet. A lack of surface casing was cited as a reason for the change. I don't understand how lack of surface casing precludes the original steps.

Shoshone 65-41 well (EPA Well ID WY20000-02179):
The approval EPA granted to plug this well included specific steps (see procedure, steps 8 and 9). These steps planned adding perforations though the 5.5" casing and 4.5" liner at 400 feet depth and pumping cement through these casing strings to the surface, in order to fully cement this uncemented portion of the well. Adding this cement would have provided better assurance of precluding fluid movement behind the 5.5" casing into or between underground sources of drinking water. The daily rework records indicate these steps were replaced after consulting with BLM. The replacement steps included balancing a cement plug inside the 5.5" casing, cutting off the 5.5" casing 3 feet below ground, and adding 5 more cement sacks inside the 5.5" casing. This final as-plugged condition leaves the annulus between the 5.5" casing the well borehole still uncemented from surface to 432 feet. A lack of surface casing was cited as a reason for the change. I don't understand how lack of surface casing precludes the original steps.

QUESTION: Can you please explain the rationale, rooted apparently in the lack of surface casing in each well, for making these changes during the actual plugging? These avoided steps were specifically included in the procedures written by Merit's engineers and approved by the EPA. Did Merit attempt to contact the EPA during plugging to discuss whether these changes could be approved? Although I was not working on 6/6/22, the date this deviation occurred at the Shoshone 65-41 well, I was working on 6/2/22, the date this deviation occurred at the Shoshone 65-42 well. Further, there are others here at EPA who could have assisted with this matter in my absence. I attach the original 4/5/22 EPA approval for plugging these wells as well as minor changes approved by EPA on 6/3/22.

Thank you.

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